California Public Utilities Commission:
Oversight of Natural Gas Pipelines

Overview

Two recent tragedies serve as solemn reminders for the public and the Legislature of the importance of the California Public Utilities Commission's (PUC) responsibility to oversee natural gas pipeline safety. On Christmas Eve 2008, a Pacific Gas & Electric Company (PG&E) pipeline explosion in Rancho Cordova killed one person and injured five others. The blast severely damaged two homes, and several other homes incurred minor damage.[1] Less than two years later, on September 9, 2010, a PG&E pipeline exploded in San Bruno killing eight people and injuring 65 others. The blast destroyed 37 homes and damaged another 48 homes.[2]

Since these events, the PUC and the National Transportation Safety Board (NTSB) have opened investigations and issued reports. Both of these efforts focus primarily on the responsibilities of the operator (PG&E) to abide by federal gas pipeline safety standards. While federal law addresses the actions of operators, it also holds state agencies responsible for the enforcement of these standards.[3]

Given the critical responsibility of this program for public safety, the Assembly Committee on Accountability and Administrative Review wishes to examine the PUC's performance in implementing federal pipeline safety guidelines. Only by ensuring that regulatory agencies rigorously enforce the law can we be assured that private operators will not expose the public to undue risk.

The Assembly Committee on Accountability and Administrative Review will:

1. Assess the PUC's oversight of natural gas operators and its implementation of gas pipeline safety standards *before* the Rancho Cordova and San Bruno explosions;
2. Assess the PUC's response to the Rancho Cordova explosion, including the timeliness of changes to its gas pipeline safety program;
3. Assess the PUC's response to the San Bruno explosion; and
4. Assess the ongoing changes the PUC has made to its oversight of gas pipelines, and determine if changes are necessary to improve its implementation of federal pipeline safety standards.

California Public Utilities Commission

The California Public Utilities Commission (PUC) regulates a wide array of services, such as privately owned telecommunications, electric, natural gas and water companies, in addition to overseeing rail transit, moving and transportation companies. The PUC is responsible for ensuring that private utility customers have safe, reliable utility service at reasonable rates.[4] The PUC is also

[1] NTSB Pipeline Accident Brief
[2] "PG&E San Bruno Pipeline Failure" presentation by Paul Clannon, CPUC Executive Director, July 2011
[3] 49 USC § 60105
[4] Public Utilities Code, section 451

the federally-designated agency in California responsible for implementation of laws and regulations pertaining to natural gas distribution.

In return for certifying that it will conduct the necessary inspections and record maintenance reviews to ensure that operators are abiding by the Federal Pipeline Safety Act, the federal government pays the PUC for approximately 60 per cent of the cost of the pipeline safety program. In the event the federal Department of Transportation determines the PUC is not satisfactorily carrying out its duties, it can revoke all or part of this funding.[5]

The Commission is composed of five members, all of whom are appointed by the Governor and confirmed by the Senate. Based in San Francisco, the PUC has nearly 1,000 employees and a budget of $1.4 billion in FY 2011-12. The budget is composed of various annually-appropriated special funds, including federal funds. More than 80 per cent of PUC funding comes from user fees assessed customers' utility bills.[6] The pipeline safety program receives federal support through the Pipeline and Hazardous Materials Safety Administration (PHMSA) based on a formula that takes into account its score on annual performance assessments, as well as the scope of its jurisdiction. For example, certified state agencies whose jurisdiction includes municipal utilities or interstate pipelines are eligible for additional funding.

Explosion in Rancho Cordova

The PUC provided the Committee with the following overview and update on their response to the 2008 explosion and fire in Rancho Cordova:

> The Utilities Safety and Reliability Branch (USRB) of the Consumer Protection and Safety Division began its investigation immediately after the incident on December 24, 2008. USRB staff was present at the accident site shortly after the incident and participated as a party to the NTSB investigation. USRB also conducted its own investigation. The USRB staff completed its investigation and report in early 2010, and the NTSB adopted its final report on Rancho Cordova on May 18, 1010.
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> The USRB staff report included findings that PG&E's practices and actions violated certain provisions of the Public Utilities Code and the Code of Federal Regulations (CFR) Part 192. USRB staff worked with the Commission's legal division to prepare an Order Instituting Investigation (OII) to allow the Commission to adopt findings of violations and penalties. Despite its name, an OII is not the beginning of the actual investigation but the beginning of the enforcement stage.
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> The Commission opened the Rancho Cordova OII (I.10-11-013) in November, 2010. USRB staff was preparing the OII when the San Bruno explosion occurred, and delayed work on the OII while addressing the more immediate San Bruno issues. A stipulated agreement on Rancho Cordova was announced on June 20, 2011, where

[5] 49 USC § 60107

[6] Independent Review Panel Report, Exec. Summary, p. 19

PG&E has agreed to wrongdoing on multiple counts and will pay a $26 million fine. The stipulation still requires approval from the commissioners.

The PUC has not demonstrated any tangible changes to its pipeline safety policies or procedures in the two and a half years since this disaster. PUC staff indicates that inspectors discuss new errors among themselves and routinely examine all operators for a specific problem discovered in the system of any one operator. But to date, there have been no permanent changes to the pipeline safety methodology or program in response to the Rancho Cordova explosion.

Explosion in San Bruno

According to information provided by the PUC, USRB inspectors arrived on site shortly after the explosion and fire on September 9, 2010. Three days later, the PUC issued an administrative order to PG&E to reduce pipeline pressure, preserve records, and produce other information. In the following months, the PUC took action to formalize the gas pressure reduction, and to require the operator to implement NTSB recommendations.

Despite its expertise, the NTSB does not have authority over gas operators, and PHMSA delegates its authority to the PUC. The PUC can only exercise its penalty authority by opening a formal proceeding. On February 24, 2011, the Commission opened a proceeding to determine "whether PG&E's gas transmission pipeline recordkeeping was unsafe, whether it violated the law, and if so whether deficient PG&E recordkeeping caused or contributed to the pipeline rupture in San Bruno."[7] To date, the Commission has not issued any decisions pursuant to this proceeding.

The NTSB and the Independent Review Panel (IRP) conducted parallel investigations. On September 23, 2010, the PUC convened a group of outside experts called the *Independent Review Panel* to examine the causes of that explosion, to "delve into the complexities" of pipeline integrity management and oversight, and to make recommendations to operators and regulators.

The NTSB released a preliminary report approximately one month after the explosion, and has issued a series of updates regarding the cause of the explosion. In January 2011, the NTSB issued several urgent recommendations, some of which were directed at the PUC:

- Ensure that PG&E "aggressively and diligently" search documents and records to determine which pipeline segments had not previously gone through a testing regimen to determine a safe operating pressure;
- Provide oversight of any testing conducted by PG&E if the document and records search cannot be satisfactorily completed;
- Immediately inform California intrastate natural gas transmission operators of the circumstances of the San Bruno accident so these operators can likewise proactively implement any corrective measures for their pipeline systems.

The NTSB's final report into the cause of this explosion is expected to be released prior to the anniversary of the disaster.

[7] PUC I.11-02-016

The IRP report issued on June 9, 2011 concluded that the pipeline rupture was "a consequence of multiple weaknesses in PG&E's management and oversight of the safety of its gas transmission system," and that the CPUC "did not have the resources to monitor PG&E's performance in pipeline integrity management adequately or the organizational focus that would have elevated concerns about PG&E's performance in a meaningful way."

Separate from these investigations, the PUC was in the process of negotiating the Gas Accord V agreement with PG&E. On October 15, 2010, the Commission added a "safety phase" to the proceeding to address the safety-related aspects of the operator's system from 2011 to 2014. The May 31, 2011 draft decision indicates that the purpose of the safety phase is to "require PG&E to take steps to ensure that gas leaks and explosions are quickly responded to, that appropriate procedures and coordination with fire departments and agencies are in place, to make sure that these fire departments and agencies are aware of the GT&S [gas transmission and storage] facilities in their communities, and to ensure that gas shut-off valves are being tested on a regular basis."[8]

Pipeline Integrity Management

While the IRP report primarily addresses the operator's actions, it also acknowledges that "the very issues that surface regarding the quality of PG&E's pipeline integrity management are mirrored in the requirements for effective CPUC oversight."

Oversight of gas distribution differs in fundamental ways from other inspection programs. The fact that most pipelines are buried underground usually prevents direct inspection. Due to the potentially catastrophic consequences of pipeline failure, the gas industry and PHMSA adopted the "integrity management" approach. This approach is more proactive than simple compliance monitoring.

Compliance monitoring requires oversight agencies to check the actions of operators against a list of proscribed, minimal standards. Integrity management requires operators to develop their own plan to identify and address safety risks on an ongoing basis; and it requires oversight agencies to verify that operators create and properly implement their integrity management programs.

The Independent Review Panel identifies the central tenets of pipeline integrity management as the following:

1. If an activity is not documented, it was not done.
2. A threat is assumed to exist until it can be demonstrated it does not exist.
3. The re-inspection interval should be scheduled to ensure the integrity of the pipeline between inspections.

This approach has a "zero incident" goal, which means that any pipeline failure is an indication that the underlying integrity management program has failed. For example, press accounts revealed in June 2011 that PG&E had ignored warnings as early as 1992 from its own staff regarding its poor

[8] Decision on the Safety Phase Protocols and Procedures Adopted for PG&E, Proposed Decision of ALJ Wong

quality or missing pipeline documentation.[9] Subsequent NTSB and PUC documents have indicated that these types of records are critical to public safety because, among other reasons, they form the basis for decisions about maximum allowable operating pressures.

It is evident that PG&E failed by using unreliable information which indicated pipeline 132 in San Bruno was seamless, but the PUC also failed by not holding PG&E to the record maintenance requirements. Had the PUC properly implemented its record inspection duties, it would have identified the weakness in the operator's integrity management program, and it could have acted sooner to have the operator remedy these weaknesses.

Similarly, PG&E appears to have ignored warnings as recently as two months before the San Bruno disaster, from its own internal risk assessment unit regarding the "unacceptable risk" of pipeline failure that would be "exacerbated by PG&E's failure to adequately respond."[10] The internal report described potential disaster scenarios which actually played out in San Bruno, such a blast caused by an over-pressurized pipeline and unmaintained high-pressure regulators, breakdowns in emergency communications, and reliance on untrained employees in emergencies.

In a Budget Change Proposal submitted on May 13, 2011, the PUC acknowledged that "Historically, the Commission's safety staffing levels reflected [their] expectation that those [they] regulate inherently recognize public safety as their top priority."[11]

General Rate Case

The primary opportunity for the PUC to exercise its constitutional authority over private utility providers comes during the General Rate Case and Gas Accord proceedings. The General Rate Case results in a three to four-year agreement between the Commission and the operator establishing the latter's gas distribution revenue requirement. The Gas Accord is a parallel proceeding which establishes retail distribution rates, based on specific infrastructure projects the operator plans to complete during that cycle.

The 2007 PG&E Gas Accord IV decision included authorization to recoup from customers the cost of infrastructure repairs, including those to pipeline 132 in San Bruno. After the explosion along that pipeline, the operator revealed that it had collected those funds from customers, and then exercised its discretion to spend them elsewhere.[12] The PUC did not track the expenditure of these funds to ensure that they had been spent on projects with the highest priority to public safety.

For the 2011 PG&E Gas Accord V decision, the Commission decided to add a "safety phase." The stated rationale for doing so is the Commission's obligation to ensure that the decision is "in the public interest." This provides an opportunity for the Commission to address how this operator will address safety concerns throughout its system.

[9] "PG&E knew about its shoddy record-keeping as early as 1992," The Mercury News, June 20, 2011.
[10] "Enterprise Risk Management Risk Review." PG&E July 13, 2010
[11] PUC BCP #5, FY 2011-12
[12] PUC, "Decision Regarding the Gas Accord V Settlement," A.09-03-13, p. 54.

While this is certainly a step in the right direction, it is unclear why the Commission—whose mission includes public safety—would have neglected to address safety issues in its previous agreements with natural gas operators. The Committee may wish to inquire as to why the Commission determined in 2011—but not before—that protecting the public safety is in the public interest. Specifically, why didn't the Commission incorporate a safety phase into previous gas accords?

Further, the Commission did not make use of this opportunity to exercise its responsibilities under the Pipeline Safety Act, to ensure that the operator had an adequate integrity management program, including the necessary documentation.

In fact, Consumer Protection and Safety Division staff of the PUC told the Independent Review Panel that they traditionally have little involvement in natural gas ratemaking proceedings.[13] These staff also indicated they have previously sought increased involvement by offerings assistance to the Energy Division and the Division of the Ratepayer Advocate, which are involved in these proceedings.

Under current practice, the primary goal of these proceedings is the establishment of fair prices for utility customers. But by the Commission's own declaration, it also has a responsibility to ensure that utilities operate in a safe manner.[14]

Resource Allocation

The Independent Review Panel argues that a lack of resources has hampered the PUC pipeline safety program. The PUC is responsible for implementing federal pipeline safety regulations on more than 11,000 miles of pipeline, including 2,350 miles of which are in high consequence areas for which the PUC must also enforce federal integrity management requirements.[15] Pipeline inspectors conduct the following activities:

- Audits & Inspections of gas pipeline maintenance and operations;
- Incident Investigations;
- Safety-Related Condition Investigations;
- Monitoring the Gas Pipeline Replacement Program;
- Administering the Damage Prevention Program;
- Federal Audits; and
- Safety & Inspection Training.

In the years prior to the explosions in Rancho Cordova and San Bruno, the duties of the pipeline safety program had been expanding. In 2004, the federal pipeline integrity management rules came into effect, requiring gas operators to create a plan to identify and evaluate the risks to their systems,

[13] Independent Review Panel report, Appendix Q

[14] PUC, "The California Public Utilities Commission: Regulating Essential Services." April 2010.

[15] Independent Review Panel report, Exec Summary, p. 19; The definition of High Consequence Area in 49 CFR §192.903 can be summarized as an area located within close proximity of a transmission pipeline (generally less than 660 feet away) that is an area of common congregation, highly populated area, or a facility having persons that may be difficult to evacuate. Generally, in the first two cases, the areas must have 20 or more people, 50 or more times per year.

and to address these risks. State partners such as the PUC were required to develop competency in risk assessment, in order to enforce these guidelines.

From January 1, 2008 to July 1, 2010, the Utilities Safety and Reliability Branch of the Consumer Protection and Safety Division was staffed with 15 Utilities Engineers (the classification for inspectors), who split their time evenly between electric and gas pipeline oversight.[16] At the time of the Rancho Cordova explosion, there were 7.5 PY's dedicated to gas pipeline safety. In July 2010, the USRB was divided into separate sections for gas and electric utility oversight, resulting in 9 PY's dedicated to pipeline safety.[17]

On December 29, 2010, the PUC submitted a Budget Change Proposal to augment its gas safety program by 4 PY's. The request indicates that at that point, the Commission was still not meeting its obligations to implement the gas distribution integrity management rule. By its own admission, the PUC should have been conducting four integrity management audits per year, but it conducted a total of six from 2005 through 2010. The PUC had 0.08 inspectors (officially classified as *Utilities Engineers*) per 1,000 miles of pipeline, which is less than half the national average of 0.17.

Through a combination of requests, the PUC gained an additional 13.5 PY's for gas safety work since December 2010. The increase allowed the Commission to create a Public Safety Risk Assessment and Analysis Team, and it brought the number of authorized positions for pipeline safety inspectors from eight to 17.5. When the 5.5 new Utilities Engineers are hired and trained, the ratio of inspectors to pipeline will increase from 0.08 to 0.175.

PUC staff indicates their ability to hire and retain qualified staff in safety-related positions has also been compromised by the statewide hiring freeze and the loss of state vehicles for inspectors. Administrative rules permit an exemption to the freeze to hire Utilities Engineers because they are mission-critical, but the exemption process takes several months. According to PUC staff, this has delayed the filling of two vacant Utilities Engineer positions in Southern California.

Pipeline safety inspectors are exempt from the bans on travel, ostensibly freeing them to attend the necessary training sessions offered free-of-charge by PHMSA. In practice, however, inspectors have been slow to attend these important training sessions because USRB has not had enough staff to cover regular audits and investigations, and emergency investigations.

Oversight going forward

Since the disasters in Rancho Cordova and San Bruno, the Commission has understandably focused on determining the cause of these explosions and the operator involved. As we approach the anniversary of the most recent pipeline explosion and two and half years since the previous explosion, it is appropriate for the Commission and the Legislature to look ahead to the tangible improvements that must be made to protect public safety.

[16] PUC, Does not include one Program Manager, two Program & Project Supervisors, or three Senior Engineers.
[17] PUC, Does not include one Program Manager, one Program & Project Supervisor, or two Senior Engineers.

On February 24, 2011, the Commission issued an Order Instituting Rulemaking, signaling its intent to set new rules for the safe and reliable operation of natural gas pipelines in California.[18] Importantly, this is the first action the Commission took indicating that it would review rules for gas operators other than PG&E. In its Rulemaking, the Commission stated "The human suffering caused by these events is overwhelming. Families lost loved ones and an entire community endured widespread destruction. The depth of this tragedy is the source of our resolve to take all actions necessary to ensure that it never happens again…This rulemaking is a forward-looking effort to establish a new model of natural gas pipeline safety regulation applicable to all California pipelines."

The PUC has issued two decisions in this Rulemaking proceeding, which remains open. The first decision, issued in March 2011, found PG&E in contempt for failing to provide documents requested by the Commission. The second decision, issued in June 2011, ordered all California natural gas transmission operators to develop and file a *Natural Gas Transmission Pipeline Comprehensive Pressure Testing Implementation Plan* to achieve the goal of orderly and cost effectively replacing or testing all natural gas transmission pipeline that have not been pressure tested.

[18] PUC R.11-02-019

Timeline of CPUC Activities in Response to the Rancho Cordova Explosion

12/24/08 1335 hours	Natural gas explosion and fire in Rancho Cordova, CA.
12/24/08 1730 hours	CPUC Consumer Protection and Safety Division (CPSD) representative, Ms. Banu Acimis, arrived at the site, met with PG&E representatives, and conducted an initial field investigation of the incident.
12/24/08– 11/10/10	CPSD conducted its own investigation. Concluded that: • Gas leaked from a 2006 repair that used substandard pipe that separated from the coupling. • The pipe segment installed in 2006 to repair a leak was not pressure tested prior to reinstating gas service. • PG&E installed another substandard pipe in October 2006 in Elk Grove. When PG&E discovered the unauthorized pipe in Elk Grove, PG&E did not replace the pipe with an approved pipe, and PG&E did not follow its procedures to locate similar substandard pipes in the area. • PG&E did not ensure that its properly trained and equipped personnel arrived timely at the site to investigate the gas leak and to safeguard life and property. • The dilatory response of PG&E personnel contributed to the cause of the explosion and loss of life. • PG&E did not administer drug and alcohol tests after the Rancho Cordova explosion to all employees whose performance on December 24, 2008, could not be completely discounted as a contributing factor to the accident.
12/29/08- 1/1/09	NTSB Investigative team, which included CPUC staff Ms. Acimis and Mr. Raymond Fugere, held a series of meetings, conducted witness interviews, and conducted field investigations.
12/31/08	NTSB, CPUC, and the investigative team conducted interviews.
2/5/09	NTSB, CPUC, and the investigative team conducted interviews.
2/19/09	CPUC Ms. Acimis requested to examine PG&E Sacramento materials yard. Ms. Acimis discovered significant negligence. She noticed that two pieces of substandard pipe that were used only to support the coils of the gas pipe during shipment, had been mistakenly put in a bin that was labeled as gas service stubs. These substandard pipe pieces should have been disposed of in a trash bin after PG&E received the shipment. A similar section of substandard pipe was inadvertently used by PG&E pipeline repair workers to make the 2006 repair.
5/18/10	NTSB released its Pipeline Accident Brief.
11/19/10	CPUC instituted a formal investigation to determine whether PG&E violated any provision or provisions of the California Public Utilities Code, CPUC general orders or decisions, or other applicable rules or requirements in regards to its gas service and facilities pertaining to the gas explosion and fire that

	occurred on December 24, 2008 in Rancho Cordova, California (I-10-11-013).
6/20/11	CPSD and PG&E filed a joint motion to resolve the investigation, and PG&E agreed to pay $26 million to the General Fund within 20 days of the CPUC approval.
6/21/11	CPUC ALJ sent out an e-mail ruling that required any party planning to file comments on the joint motion and stipulation or file and serve the comments by July 20, 2011; and required reply comments by July 27, 2011. This ruling held open July 29 for a possible hearing on contested issues or other items if a hearing would be necessary.
7/7/11	CPUC ALJ confirmed the email ruling in a formal CPUC document.
After July 27, 2011	ALJ will prepare a proposed decision addressing the proposed stipulation.

Timeline of CPUC Activities in Response to the San Bruno Explosion

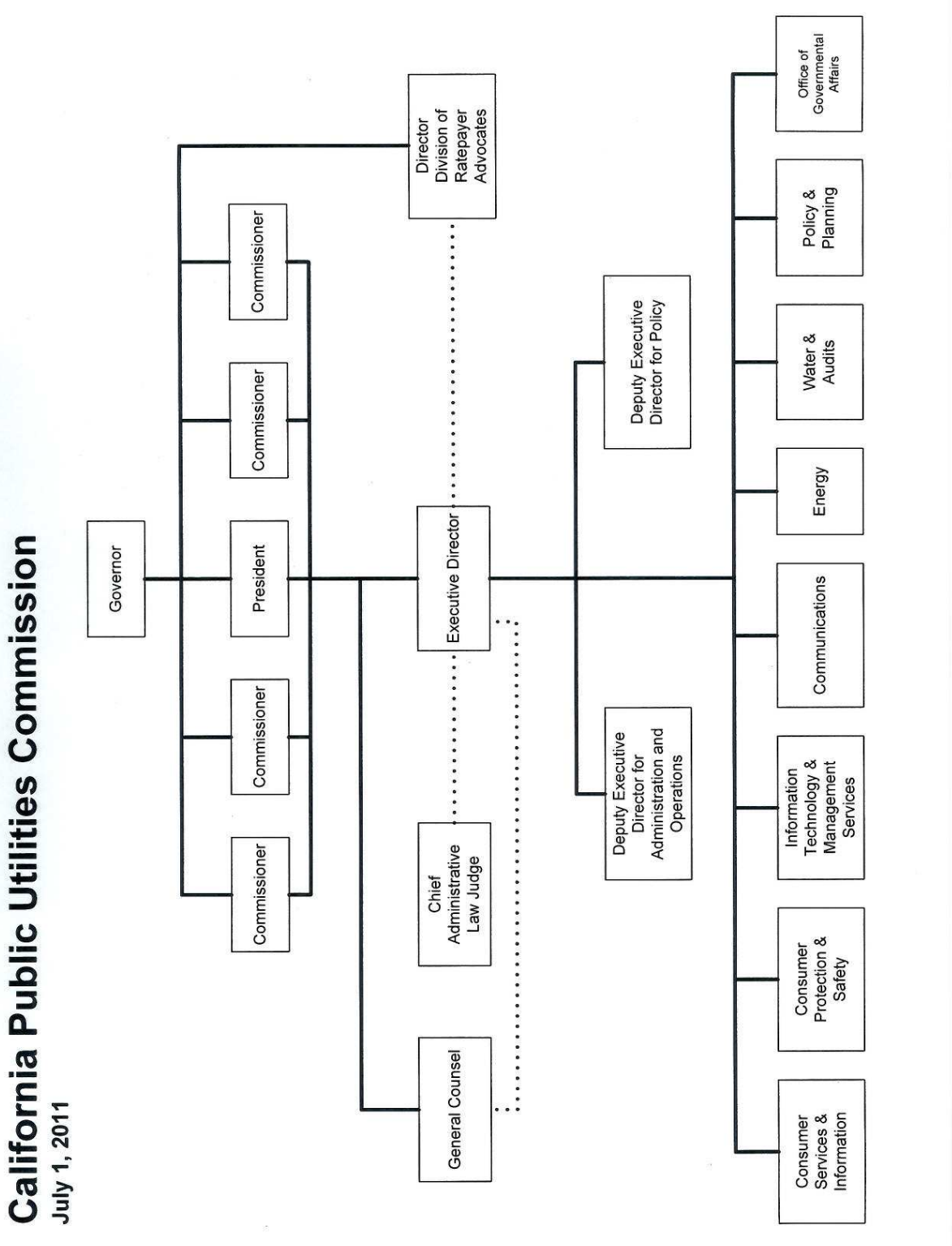
09/09/2010	Natural gas explodes in San Bruno, CA.
09/09/2010	Pacific Gas and Electric Company's (PG&E) natural gas transmission line 132 ruptures in San Bruno. CPUC sends inspector to site.
09/12/2010	CPUC orders PG&E to reduce pipeline pressure, inspect natural gas system, preserve records, report on authorized vs. actual levels of spending on pipeline maintenance, and evaluate customer leak complaint records.
09/23/2010	CPUC establishes Independent Review Panel to study San Bruno pipeline rupture.
10/13/2010	National Transportation Safety Board (NTSB) issues first preliminary factual report of the investigation. • Pipeline showed no signs of extensive corrosion. • Fairly uniform wall thickness. • Equipment failure at PG&E's Milpitas Terminal pressure issues in the line just before the blast. • PG&E did not dispatch workers to cut off the flow of gas to the ruptured pipeline until 6:45 p.m., 34 minutes after the blast.
10/28/2010	CPUC approves rate relief to customers directly impacted by the explosion.
11/23/2010	CPUC begins hiring four additional pipeline inspectors.
12/14/2010	NTSB issues factual update on the metallurgical testing phase of its investigation. • PG&E records show the rupture location was constructed of 30-inch-diameter seamless steel pipe with a 0.375-inch thick wall. But evidence obtained so far indicates the pipeline in the area of the rupture was constructed, at least in part, with seam-welded pipe. • Investigators found that while the longitudinal seams on some of the pipe segments were fusion-welded from both inside and outside the pipe, some were fusion-welded only from the outside of the pipe. • The outer surfaces of the ruptured pipe pieces revealed no evidence of external corrosion. No dents, gouges, or other physical indications consistent with excavation damage were observed.
12/16/2010	CPUC directs PG&E to take further actions to ensure safety, including reducing the pressure on all pipelines that were of the same size and age as the pipeline that exploded in San Bruno and had not yet been pressure tested.
01/03/2011	NTSB issues urgent Safety Recommendations after announcing that it found that PG&E's records incorrectly identified the type of pipe in the ground in San Bruno.
01/03/2011	CPUC directs PG&E to undertake Safety Recommendations made by the NTSB and by March 15th conduct a complete and comprehensive records search of pipeline documents in order to determine the valid MAOP based on

	the weakest section of the pipeline or component to ensure safe operation of PG&E's pipelines. The CPUC had ordered PG&E to take similar action in a December directive. • CPUC also directs the state's other natural gas pipeline operators - SoCalGas, SDG&E, and Southwest Gas Corp. – to report on the steps they are taking in response to the NTSB's recommendations.
02/02/2011	CPUC orders PG&E to reduce operating pressure on additional pipelines after the CPUC learns that PG&E over a period of several years had allowed the pressure to rise above the maximum set by federal rules. PG&E ordered to: • Reduce operating pressure by 20 percent on certain transmission lines that have segments located in High Consequence Areas. • Reduce operating pressure by 20 percent for any additional transmission lines that have segments located in High Consequence Areas that are found, through further investigation, to have experienced planned or unplanned events in which the segments experienced pressure greater than 110 percent of maximum.
02/24/2011	CPUC opens Rulemaking to set new rules for the safe and reliable operation of natural gas pipelines in California. Public Participation Hearings set for: • **April 5, 2011**, 5 p.m. – 10 p.m., San Bruno Senior Center, 1555 Crystal Springs Rd., San Bruno • **May 12, 2011**, 4 p.m. – 7 p.m., CalTrans Building, First Floor, Conference Room, 100 S. Main St., Los Angeles • **May 16, 2011**, 4 p.m. – 7 p.m., Steele Lane Community Center, Auditorium, Dohn Room, 415 Steele Ln., Santa Rosa
02/24/2011	CPUC begins penalty consideration phase into whether PG&E's gas transmission pipeline recordkeeping was unsafe, whether it violated the law, and if so whether deficient PG&E recordkeeping caused or contributed to the pipeline rupture in San Bruno.
03/01/2011- 03/03/2011	CPUC participates in NTSB public hearings In Washington, DC called to gather additional factual information for the ongoing investigation into the pipeline rupture.
03/15/2011	Proposed Decision issued in PG&E's Gas Transmission and Storage rate case that calls for submission of a semi-annual Safety Report by PG&E to the CPUC and that will allow CPUC staff to track PG&E's capital expenditure projects and operations and maintenance activities over the four year rate cycle period in order to determine if the pipeline projects that have been identified by PG&E as needing replacement or modification are being performed, or if other higher priority projects and operations and maintenance activities are being performed instead.
03/16/2011	CPUC Executive Director demands records from PG&E after utility fails to comply with CPUC's Jan. 3rd order when it filed its pipeline records report on March 15th.

	• CPUC had directed PG&E to comply with the NTSB's urgent recommendations to compare installed pipe to as-built drawings and other records to be certain the proper MAOP has been established for pipelines. Instead, PG&E relied on the determination of MAOP based on the historical high operating pressure. The CPUC's directive, and the NTSB's recommendation, called for PG&E to find, to the extent possible, a basis for setting MAOP by means other than the grandfathering method described in PG&E's response. • CPUC staff recommended fines and penalties for willful non-compliance. Commissioners approve such an Order to Show Case on March 24, 2011.
03/28/2011	Evidentiary Hearing on Order to Show Cause includes review of a stipulated outcome that would fine PG&E $6 million in shareholder funds and would require PG&E to operate under a compliance plan to complete the CPUC's directive. Of the $6 million, $3 million would be immediately payable to the state's General Fund, and $3 million would be suspended if PG&E hits milestones in their records search process and completes its records search for information on grandfathered pipes by August 31, 2011.
05/06/2011	CPUC holds Educational Symposium on Hydrostatic Testing of Natural Gas Pipeline.
06/09/2011	Independent Review Panel issued its report concluding that the pipeline rupture was "a consequence of multiple weaknesses in PG&E's management and oversight of the safety of its gas transmission system," and that the CPUC "did not have the resources to monitor PG&E's performance in pipeline integrity management adequately or the organizational focus that would have elevated concerns about PG&E's performance in a meaningful way."
06/09/2011	CPUC orders all California natural gas transmission operators to develop and file for CPUC consideration a Natural Gas Transmission Pipeline Comprehensive Pressure Testing Implementation Plan to achieve the goal of orderly and cost effectively replacing or testing all natural gas transmission pipeline that have not been pressure tested.
07/07/2011	CPUC creates a new Risk Assessment Unit to research, develop, and propose tools to improve pipeline safety and oversight in the state, and is also augmenting its pipeline inspector team by five.

Timeline of CPUC Requests for Pipeline Safety Personnel

12/21/2006	PUC submits BCP#4 for FY 2007-08. **Form a Federally Funded Critical Infrastructure Security Team**. Increase of $500,000 from the Federal Trust Fund (contingent upon receipt of federal funding) for 4.0 positions to staff the critical infrastructure security team to coordinate programs for disaster preparedness, protect critical infrastructure, assess risks, and effectively distribute funding and resources in the event of a terrorist attack or other disaster. The draft federal National Infrastructure Protection Plan provided a unifying structure with respect to the electric, natural gas, water, railroad, rail transit and telecommunications providers that the CPUC regulates. *Result: Included in the Governor's Budget; denied by the Legislature.*
12/29/2010	PUC submits BCP#3 for FY 2011-12. **Natural Gas Distribution Safety Program.** Increase of 4.0 positions and $498,000 ($249,000 PUCURA and $249,000 FTF) to improve the safety of natural gas distribution systems in California. *Result: Approved as budgeted.*
03/23/2011	PUC submits FL/BCP#3 for FY 2011-12. **DRA Natural Gas Monitoring and Auditing.** Increase of 2.0 positions and $173,000 from PUCURA to accommodate expanding workload related to natural gas safety and auditing activities to comply with Public Utilities Code Sections 309.5 and 314.5. *Result: Approved as budgeted.*
05/13/2011	PUC submits MR/BCP#5 for FY 2011-12. **Public Safety Risk Assessment and Analysis Unit**. Increase of $1,072,000 (PUCURA) and a redirection of 4.0 positions from the Workforce Cap Reduction to develop, implement and maintain a risk analysis-based public safety program. BCP #5 includes $500,000 in consulting services to address immediate safety concerns. *Result: Approved as budgeted.*
TBD	PUC requests an augmentation for FY 2010-11 from the Joint Legislative Budget Committee for **Gas Inspectors**. An increase of 5.5 gas inspectors with associated funding. *Result: Approved as budgeted.*


California Public Utilities Commission
July 1, 2011
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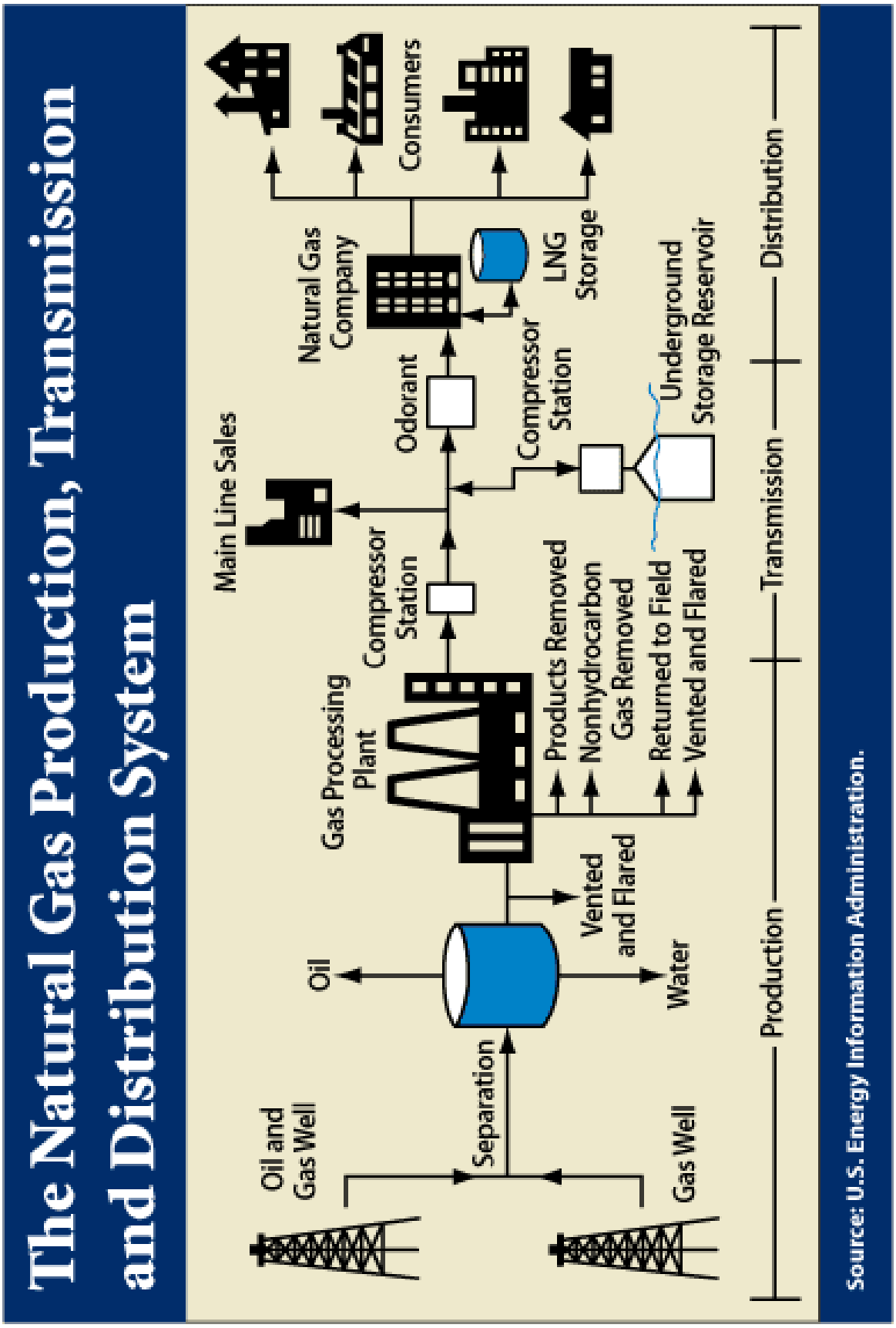
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Transmission
Distribution
Source: U.S. Energy Information Administration.

Glossary

Distribution – Gas distribution pipelines carry gas from operators to customers, and therefore are concentrated in populated areas. Pressure in distribution lines is lower than in transmission lines.

High Consequence Areas (HCA's) – Defined in 49 CFR §192.903; can be summarized as: an area located within close proximity of a transmission pipeline (generally less than 660 feet away) that is an area of common congregation, highly populated area, or a facility having persons that may be difficult to evacuate. Generally, in the first two cases, the areas must have 20 or more people, 50 or more times per year.

Integrity Management – This risk-based management process requires operators to identify the threats to their pipelines, analyze the risk posed by these threats, collect information about the physical condition of their pipelines, and take actions to address applicable threats and integrity concerns before pipeline accidents could occur.

Integrity Management Program/Rule - The federal Department of Transportation's Pipeline and Hazardous Materials Safety Administration published rules requiring "integrity management" programs for natural gas transmission pipelines in 2003, and similar rules for natural gas distribution in 2004.

Operator – The entity, such as a private utility company, that provides gas service to customers. Operators generally also build and maintain the infrastructure (i.e. pipelines) necessary to transport their product.

Order Instituting Investigation (OII) - An order issued by the Public Utilities Commission which commences its formal investigation, based on information obtained by PUC staff. In practice, this is the beginning of the enforcement stage, allowing the Commission to adopt findings of violations and institute penalties.

Order Instituting Rulemaking (OIR) – An order issued by the Public Utilities Commission which commences a proceeding in which it can exercise its authority to issue injunctions and penalties.

Pipeline and Hazardous Materials Administration (PHMSA) – The agency within the U.S. Department of Transportation which through its Office of Pipeline Safety, administers a national pipeline safety program pursuant to the Pipeline Safety Act. The purpose of the Act is to protect "against risks to life and property posed by pipeline transportation and pipeline facilities." To accomplish this purpose, PHMSA is authorized to prescribe and enforce minimum safety standards against owners and operators of pipeline facilities.

Regulator – Although PHMSA has jurisdiction over intrastate pipeline facilities, all states except Alaska and Hawaii regulate intrastate gas pipeline facilities through an annual certification program. The PUC is the regulator in charge of ensuring that gas operators in California abide by federal pipeline safety rules.

Transmission – Higher pressure gas transmission pipelines carry gas across great distances, such as across state lines, and only occasionally cross populated areas. This term is often conflated to include distribution, although the two are technically different.

Utilities Safety Reliability Branch (USRB) - The branch of the Consumer Protection and Safety Division of the CPUC that regulates and inspects intrastate gas pipeline safety under federal and state authorities and pursuant to an annual program certification to PHMSA.